

Order ID 162484 -1

Tuesday, June 06, 2017 4:57:34 PM

466/yr

162484

Page 1

Item ID: D2622-120C

Revision ID:

Item Name: Step Extrusion

Start Date: 6/12/2017 Start Qty: 80.00

Required Date: 6/26/2017 Req'd Qty: 80.00

Reference:

Approvals:

Process Plan:

DAS
21
9-89

Date:

20170607

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

N9000040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2622	Rev C1

100

0.00

100

Purchasing

Purchasing

PURCHASING

Memo

0.00

Issue P/O: 36700 a) Extrude as per Dwg D2622 Rev. Cb)
Material: 6061-T6 (QQ-A-200/8)c) Minimum yield tensile strength = 35
ksid) Minimum ultimate tensile strength = 38 ksi e) Minimum elongation =
8%f) Order at 120" longg) Bon L Canada Inc.

242

JUN 14 2017

DAS
13
9-89

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Packaging

Memo

1.60

Ensure material certification is attached

235x SP177-25

120

QC18 In-Coming Inspection Material

0.00

120

QC

Quality Control

Memo

0.00

Check Pull test per Dwg D2622 for compliance page attached Check hardness
with Webster tester

235

17.07.23

DAS
9
9-89

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : _____									

Work Order ID 162484

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162484

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Item ID: D2622-120C

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Step Extrusion

Start Date: 6/12/2017 Start Qty: 80.00

80

Cust Item ID:

Required Date: 6/26/2017 Req'd Qty: 80.00

80

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

Identify as per dwg & Stock Location: WACO3 0.00

130

Packaging

Memo

0.80

Packaging

LOCATION HALL

235x DO 2017-05-31

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

8.00

Quality Control

17/8/2 df

DAS
21
9-89

AUG 01 2017

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date: _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Monday, June 05, 2017 4:53:58 PM

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Work Order ID: 162484

162484

Parent Item: D2622-120C

D2622-120C

Parent Item Name: Step Extrusion

Start Date: 6/12/2017

Required Date: 6/26/2017

Start Qty: 80.00

Required Qty: 80.00

Comments:

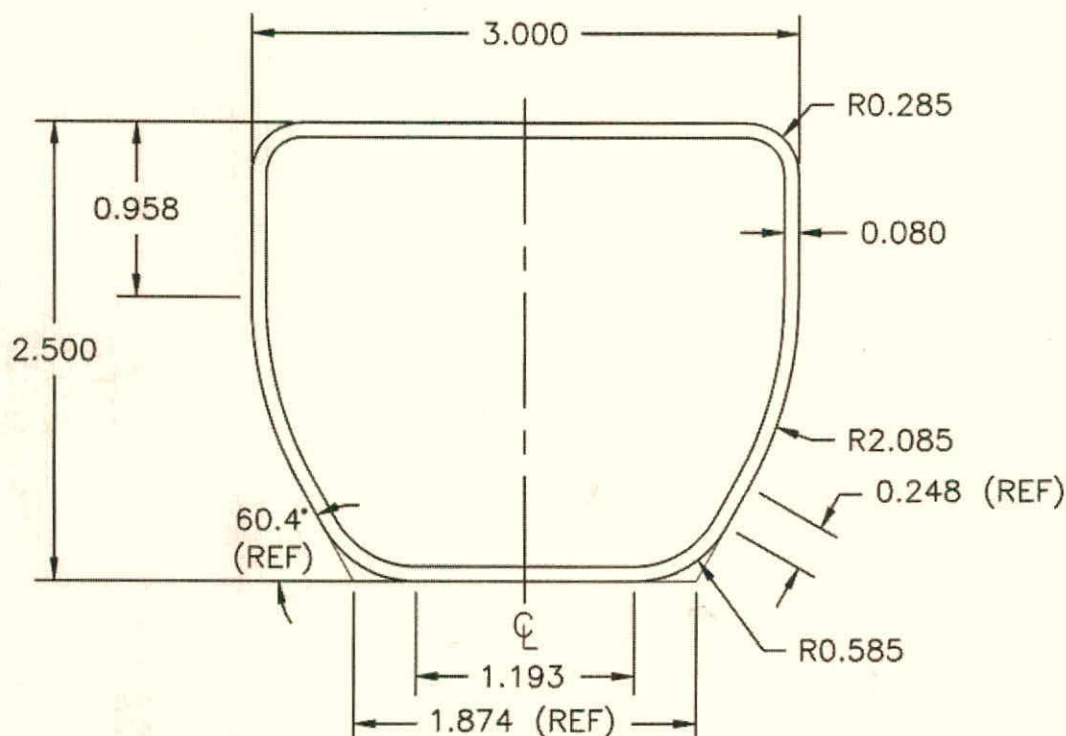
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2622-120CP		Purchased	No			110	Each	0.0000	1	80			
D2622-120CP									**				
Extrusion													

242
235 x 8017-7-25



DESIGN	KE	DRAWN BY	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	#	APPROVED	#	DRAWING NO. D2622	REV. C SHEET 1 OF 1
DATE	02.09.11	TITLE	STEP EXTRUSION	SCALE	1:1
A	96.11.29	NEW ISSUE			
B	97.12.12	CHANGE MATERIAL, ADD TOL. QSI			
C	02.09.11	0.080 WAS 0.085; ADD PART & DIE No.			
CI	# CP	02.10.04	ADD 'REV. A' TO DIE NUMBER.		

RELEASED
02.09.11 #



D2622-XXX STEP EXTRUSION

- 1) PART NUMBER IS D2622-XXX WHERE 'XXX' IS CUT LENGTH IN INCHES (EG. D2622-120 IS 120" LONG)
- 2) MATERIAL 6061-T6 (QQ-A-200/8)
- 3) MANUFACTURED USING BON-L DIE # 897123 Rev. A
- 4) A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
MINIMUM ELONGATION = 8%

- 5) PART IS SYMMETRIC ABOUT CENTERLINE
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

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20170607
162488
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SUBJECT TO CHANGE
WITH NO EFFECT
DATE 10/16/07



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO36700

Purchase Order Date 6/14/2017

PO Print Date 6/14/2017

Page Number 2 of 3

Order From : VC-BON001

SIGNATURE ALUMINUM CANADA INC.
C/O/ T10322C
P.O. BOX 4488, STN A
TORONTO, ON M5W 4H1
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905-427-6550

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB Destination-Collect

Line Total: \$2,439.84

3 D2622-120CP ✓ Extrusion ✓ 7/24/2017 242.00 ✓
Yes
7/24/2017

\$20.09 \$4,862.00
Each

EXTRUDE AS PER DWG D2622-120 REV. C
B162484
DIE # DAA- 897123
LENGHT 120"

*recu 235x
SP 17-7-25*

EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF TUBE
MATERIAL MUST BE SMOOTH AND FREE FROM DEFECT SCRATCHES,NICKS,DENTS

Line Total: \$4,862.00

4 D3882-1-130P EXTRUSION 7/24/2017 63.00
Yes
7/24/2017

\$37.02 \$2,332.00
Each

EXTRUDE AS PER DWG D3882-1-130
B162690
DIE # DAA-6
LENGHT 130"

EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF TUBE
MATERIAL MUST BE SMOOTH AND FREE FROM DEFECT SCRATCHES,NICKS,DENTS

Line Total: \$2,332.00

PO Instructions: QUOTE NO. 06092017-012B

Note:

6/14/2017

ACCT# 46024

SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

PACKING LIST DATE / DATE DU
07-24-17

PACKING LIST NUMBER / N° DE
032889

SALES ORDER NUMBER / N° DE COM
128490

SHIP TO / EXPÉDIÉ À

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

SOLD TO / VENDUE À

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

TERMS / FREIGHT

PP

REFER TO
THESE NUMBERS ON
ALL CORRESPONDANCE

REFEREZ-VOUS A CES
NUMEROS POUR TOUTE
CORRESPONDANCE

CUSTOMER ID / ID DU CLIENT	ORDER DATE / DE LA COM	CUSTOMER PO NUMBER / CLIENT PO Nombre	JOB / FICHIER	FIELD SALES REP / REP REGIONAL DES VENTES	CUST SERVICE REP / REP. SERVICE CLIENTELE
46024	06/16/17	PO36700			
		BILL OF LADING NUMBER / NO. DE CONNAISSEMENT	CARRIER / TRANSPORTEUR		
		032889	MCGILLION	G.ATTENBOROU	S1S

ITEM NO. / NUMÉRO	ORIGINAL ORDER QUANTITY / Quantité d'ordre ORIGINAL	UNIT / UNITÉ	PREVIOUS SHIPPED QUANTITY / PRÉCÉDENT Quantité livrée	MFG. PART NUMBER / MFG. PARTIE NUMÉRO	ALLOY & TEMPER / ALLIAGE & TEMPER	FINISH DESCRIPTION / DESCRIPTION DE FINITION	NBR OF PKGS / NBR DE PKGS	GROSS LBS / LIVRES BRUT	NET QUANTITY / QUANTITÉ NETTE	UNIT / UNITÉ	QUANTITY DUE / Quantité en raison
003	2,207	LB		DAA-897123-2	6061 T6		5	2,174	2,019	LB	
	1,001	KG		D2622-120CP	120.0000 IN			986	916	KG	
Y	242	PC			Cut(+): 0.1180 Cut(-): 0.0000	Min: -10 % Max: 10 %			235	PC	
						883848 / 377520	1	452	421		49 PC
						883848 / 377521	1	452	421		49 PC
						883848 / 377522	1	452	421		49 PC
						883848 / 377523	1	452	421		49 PC
						883848 / 377524	1	366	335		39 PC

8077-25

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping packing lists and signed and dated below by customers authorized representatives.

No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping packing list were produced in accordance with the fair labor standards act of 1938 as amended. Orders accepted subject to the terms and conditions stated on the reverse side.

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

Page 1 of 2

		Continued	
TOTALS			

DATE OF DELIVERY

DRIVER

**SIGNATURE ALUMINUM CANADA**1850 CLEMENTS RD
PICKERING, ON L1W 3R8**CERTIFICATE OF COMPLIANCE**

Cert Date	Cert No.	Sales Order	Page
07/16/2017	5439284	128490	1
Cust PO	B/L No	Lot	Date
PO36700	032889	883848	07/24/17

Sold To	Ship To
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA

Item No	Part No	Item Description	Cust Part
003	DAA-897123-2	10FT MILL 6061 T6	D2622-120CP
Gross Weight	2,174 LBS		
Net Qty	2,019 LBS		235 PCS
			5 PKGS
Specification			Die Desc
AMS-QQ-A-200/8 & ASTM B221-08			

Mechanical Tests:

Tensile	Yield			
MPA / KSI	MPA / KSI	% Elongation	Conductivity	HRE
334.5 / 48.5	300.7 / 43.6	11.1	N/A	93

Chemical Analysis:

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	V	Zr
0.64	0.28	0.22	0.04	0.87	0.07	0.15	0.01	0.01	0.00

*This Material is Made in Canada**This Material is RoHS Compliant*

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta
Director of Quality
Signature Aluminum Canada Inc

ISO 9001/TS16949 Registered Company

Visit us at www.signaturealum.com

